

HBV/HCV VIRUS-LIKE PARTICLE

ABSTRACT OF THE DISCLOSURE

Chimeric antigens derived from hepatitis B virus (HBV) and hepatitis C virus (HCV) are described which form virus-like particles when co-expressed with an excess of hepatitis B virus surface antigen (HBsAg). The chimeric antigens are fusion proteins containing an immunogenic peptide derived from an HCV protein coupled to the amino terminus of HBsAg. Also described are nucleic acid constructs and vectors for transfection of cells and expression of the chimeric antigens. The invention further provides methods for producing HBV/HCV virus-like particles containing the chimeric antigens, cell lines for producing the virus-like particles, combination vaccines containing the virus-like particles, and DNA vaccines that express the virus-like particles.